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EXAMINER
DAVENPORT, MON CHERI S

  

ART UNIT	PAPER NUMBER
2616	

  

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/786,536

Applicant(s)

GU, JIAN

Examiner

Mon Cheri S. Davenport

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-23** rejected under 35 U.S.C. 102(e) as being anticipated by Palenius (US Patent Number 6,904,290).

Regarding **Claim 1, 8 17 and 24** Palenius disclose a method comprising:

adjusting ( see figure 3, power level controller)a target signal-to-interference to match a first data rate applied during a first transmission time interval of the dedicated channel, the target signal-to-interference configure to provide a reference signal-to-interference value for closed-loop power control(see col. 3, lines 53-55, the ratio is adjusted based on the coding rate, data transmission rate, and or the rate matching parameter , see also col. 5, lines 4-7, information obtained during the decoding process used to determine the SIR of the signal) (see figure 2, see col. 3, lines 66-67) ( see col. 3, lines 40-45), first channel (dedicated channel), data rate is determined, then transmit power( SIR) of the first channel is controlled based on the determined data rate); and

performing a comparison (see figure 3, section 25, processor) between a signal-to-interference measured from the dedicated channel transmitted at the first data rate and the target signal-to-interference, wherein a transmit power control command is provided to a transmitter

according to the comparison (see col. 3, lines 45-49, the transmit power is adjusted based on the ratio of power between the first channel and the second channel and adjusted based on the data rate of the first channel).

Regarding **Claim 2, 9, and 18** Palenius discloses everything as applied above (*see claim 1, 8 and 17*). In addition the system includes:

further including predicting the first data rate from received signaling information(see col. 3, lines 43-44, data rate of a least a first channel is determined, see figure 3, section SIR and quality measurements).

Regarding **Claim 3, 10 and 19** Palenius discloses everything as applied above (*see claim 1, 8, and 17*). In addition the system includes:

estimating a change in a required signal-to-interference with respect to a change from a second data rate to the first data rate, the second data rate applied to the dedicated channel during a second transmission time interval transmitted prior to the first transmission time interval( see col. 6, lines 9-19, when a new TFC having a different rate than a previous TFC( second data rate), new offset value is needed, the gain factors are transmitted for each TFC and applied to the tailor the uplink transmit power in the MS at the start of the first slot where a new TFC is used); and

adjusting the target signal-to-interference by using the change in the signal-to-interference and a target signal-to-interference that matches the second data rate(see col. 6, line 41-44, a mechanism provided which the MS and the BS can calculate the power offset, based on

the change in the data rates used, see also col. 6, lines 59-62, changes in the data rate both the coding rate and the rate matching parameters should be taken into account when determining how to adjust the power offset).

Regarding **Claim 4, 11, and 20** Palenius discloses everything as applied above (*see claim 1, 8, and 17*). In addition the system includes:

further including adjusting the target signal-to-interference to provide a required quality of the dedicated channel( see col. 9, lines 4-14, data rate changes , the output power and the amplitude ratio are changed, data transmitted is transmitted using the same bit energy , which implies that performance (signal quality is maintained)) .

Regarding **Claim 5, 12, and 21** Palenius discloses everything as applied above (*see claim 1, 8, and 17*). In addition the system includes:

indicating if the target signal-to-interference ratio falls outside a range of allowed signal-to-interference values( see col. 5 lines, 25-31, the power level at which the different channels are transmitted are controlled by the power level controller, then downlink transmits power control commands); and

setting the target signal-to-interference to a value which falls within the range of the allowed signal-to-interference ratio values( see col. 8, lines 24-30, no weighing of the control channel is needed, prior to being summed , the DPCCH is adjusted by a variable gain amplifier, set by the power control commands).

Regarding **Claim 6, 13, and 22** Palenius discloses everything as applied above (*see claim 1, 8, and 17*). In addition the system includes:

adjusting the target signal-to-interference ratio by using:

a target signal-to-interference ratio adjusted to match a second data rate applied in transmission of a second transmission time interval transmitted prior to the first transmission time interval (see col. 6, lines 9-19, when a new TFC having a different rate than a previous TFC( second data rate), new offset value is needed, the gain factors are transmitted for each TFC and applied to the tailor the uplink transmit power in the MS at the start of the first slot where a new TFC is used);

an error indicator value characterizing the reliability of decoding a third coding block transmitted prior to the first transmission time interval( see col. 5 lines, 18-20, the measured BER and or FER is supplied to the processor from the downlink quality measurement unit, see figure 3, third decoder and SIR and quality measurement);

a target ( $E_b/N_o$ ) value corresponding to the required quality of the dedicated channel transmitted at the second data rate(see figure 7, section 710, adjust power ratio based on determined data rate, see col. 8, lines 46-59, is adjusted based on the data rate( 710), is adjusted based on the adjusted ratio(720)); and

a target ( $E_b/N_o$ ) value corresponding to the required quality of the dedicated channel transmitted at the first data rate(see figure 7, section 710, adjust power ratio based on determined data rate (710), is adjusted based on the adjusted ratio(720)); and

Regarding **Claim 7, 14, and 23** Palenius discloses everything as applied above (*see claim 1, 8, and 17*). In addition the system includes:

further including adjusting the target signal-to-interference ratio by using an error indicator value characterizing the reliability of decoding a third coding block transmitted prior to the first transmission time interval ( see col. 5 lines, 18-20, the measured BER and or FER is supplied to the processor from the downlink quality measurement unit, see figure 3, third decoder and SIR and quality measurement) .

Regarding **Claim 15** Palenius discloses everything as applied above (*see claim 8*). In addition the system includes:

wherein the receiver is located in a mobile station and the transmitter is located in a base station( see figure 3, see col. 4, lines 56-62, the exemplary transceiver, considered the MS).

Regarding **Claim 16** Palenius discloses everything as applied above (*see claim 8*). In addition the system includes:

wherein the receiver is located in a base station and the transmitter is located in a mobile station (see figure 3, see col. 4, lines 56-62, the exemplary transceiver, BS contains similar components).

### ***Response to Arguments***

3. Applicant's arguments filed 10/18/2007 have been fully considered but they are not persuasive.
4. Claim objections have been withdrawn due to applicant's amendment sent 10/18/2007.

In the remarks on pg. 12 and repeated on pg. 13 of the amendment, the applicant contends that Palenius does not teach or suggest “adjusting the SIR to match a first data rate applied during a first transmission time interval of a dedicated channel”

Examiner respectfully disagrees Palenius teaches the ratio is adjusted based on the coding rate. The first channel (dedicated channel), data rate is determined, then transmit power (SIR) of the first channel is controlled based on the determined data rate (see col. 3, lines 40-45)

In the remarks on pg. 12 and repeated on pg. 13 of the amendment, the applicant contends that Palenius does not teach or suggest “performing a comparison between a signal to interference measured from the dedicated channel transmitted at the first data rate and the target signal to interference ”

Examiner respectfully disagrees Palenius teaches transmit power is adjusted based on the ratio of power between the first channel and the second channel and adjusted based on the data rate of the first channel, therefore a comparison is done between the first and second channel SIR ratio , in order to adjust transmit power. The ratio is adjusted such that a power offset between the first channel and the second channel (performing a comparison) is proportional to the data rate of the first channel (see col. 3, lines 50-53)

### *Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after



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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md  
January 4, 2008



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